

1. An apparatus for extracting energy from waves in a liquid body, comprising:
 - a. at least one floating device placed in said liquid body and having a float with excess buoyancy exerting a primarily upward buoyant force on the float along a direction perpendicular to the isobaric surfaces of the liquid body which changes as said waves propagating through the liquid body;
 - b. the at least one floating device further having means for holding said float with excessive buoyancy in said liquid body, the holding means exerting a primarily downward holding force on said float while allowing said float to move back and forth in a substantially horizontal direction as a result of a substantially horizontal force which is a combination of the holding force and said buoyant force; and
 - c. means attached to said at least one floating device for generating electricity as said float moves back and forth in said liquid body.
2. The apparatus in accordance with Claim 1, wherein said holding means comprises at least one elongated flexible tether.
3. The apparatus in accordance with Claim 2, wherein said at least one tether is connected to said float at one end.
4. The apparatus in accordance with Claim 3, wherein said holding means further comprises at least one mooring device connected to another end of said at least one tether.
5. The apparatus in accordance with Claim 3, wherein said holding means further comprises at least one counter-weight device connected to another end of said at least one tether.
6. The apparatus in accordance with Claim 2, wherein holding means further comprises a mechanism for interconnecting said float and said at least one tether that allows said float to move back and forth in a substantially horizontal direction.

7. The apparatus in accordance with Claim 6, wherein said interconnecting mechanism comprises at least one roller pivotally connected to said float and riding on said at least one tether.
8. The apparatus in accordance with Claim 7, wherein said holding means further comprises at least one mooring device connected to each end of said at least one tether.
9. The apparatus in accordance with Claim 1, wherein said holding means comprises at least one substantially horizontal track.
10. The apparatus in accordance with Claim 9, wherein said holding means further comprises at least one anchoring device connected to each end of said at least one track.
11. The apparatus in accordance with Claim 9, wherein holding means further comprises a mechanism for interconnecting said float and said at least one track that allows said float to move back and forth in a substantially horizontal direction.
12. The apparatus in accordance with Claim 11, wherein said interconnecting mechanism comprises at least one roller pivotally connected to said float and riding on said at least one track.
13. The apparatus in accordance with Claim 2, further comprising means for adjusting the tension on said at least one tether.
14. The apparatus in accordance with Claim 13, wherein said adjusting means comprises a winch attached to said float.
15. The apparatus in accordance with Claim 13, wherein said winch is an electric winch.

16. The apparatus in accordance with Claim 1, wherein said holding means comprises a multiplicity of elongated flexible tethers.
17. The apparatus in accordance with Claim 16, wherein said holding means further comprises at least one mooring device connected to each one of said multiplicity of tethers.
18. The apparatus in accordance with Claim 16, further comprising means for joining said multiplicity of tethers at a distance below said float.
19. The apparatus in accordance with Claim 18, wherein said joining means comprises at least one movable collar device.
20. The apparatus in accordance with Claim 18, further comprising means for adjusting said distance below said float.
21. The apparatus in accordance with Claim 20, wherein said adjusting means comprises at least one powered collar device.
22. The apparatus in accordance with Claim 1, wherein said means for generating electricity is attached to said float.
23. The apparatus in accordance with Claim 2, wherein said means for generating electricity is attached to said at least one tether at a location adjacent to said float.
24. The apparatus in accordance with Claim 1, wherein said means for generating electricity comprises at least one turbine device.

25. The apparatus in accordance with Claim 24, wherein said at least one turbine device is a horizontal axis turbine device.
26. The apparatus in accordance with Claim 24, wherein said at least one turbine device is a vertical axis turbine device.
27. The apparatus in accordance with Claim 1, further comprising means for transporting electricity generated by said electricity generating means to a power processing facility.
28. The apparatus in accordance with Claim 1, wherein said electricity transporting means comprises at least one electrically conductive cable device.
29. A method of extracting energy from waves in a liquid body, comprising the steps of:
- a. placing at least one floating device having a float with excess buoyancy in said liquid body such that the excess buoyancy exerts a primarily upward buoyant force on the float along a direction perpendicular to the isobaric surfaces of the liquid body which changes as said waves propagating through the water body;
 - b. holding said float with excessive buoyancy in said liquid body such that a primarily downward holding force is also exerted on said float, while allowing said float to move back and forth in a substantially horizontal direction, as a result of a substantially horizontal force which is a combination of the holding force and said buoyant force; and
 - c. attaching an electricity generating means to said at least one floating device for generating electricity as said float moves back and forth in said liquid body.
30. The method in accordance with Claim 29, wherein said holding step further comprises a step of attaching at least one elongated flexible tether to said float.

31. The method in accordance with Claim 30, wherein said holding step further comprises a step of mooring said at least one elongated flexible tether attached to said float.
32. The method in accordance with Claim 30, wherein said holding step further comprises a step of attaching a counter-weight to said at least one elongated flexible tether.
33. The method in accordance with Claim 30, wherein holding step further comprises a step of interconnecting said float and said at least one tether that allows said float to move back and forth in a substantially horizontal direction.
34. The apparatus in accordance with Claim 29, wherein said holding step further comprises a step of supporting said float with at least one substantially horizontal track that allows said float to move back and forth in a substantially horizontal direction.
35. The method in accordance with Claim 30, further comprising a step of adjusting the tension on said at least one tether.
36. The method in accordance with Claim 29, wherein said holding step further comprises a step of attaching a multiplicity of elongated flexible tethers to said float.
37. The method in accordance with Claim 36, wherein said holding step further comprises the step of mooring each one of said multiplicity of tethers.
38. The method in accordance with Claim 36, further comprising a step of joining said multiplicity of tethers at a distance below said float.
39. The method in accordance with Claim 38, further comprising a step of adjusting said distance below said float.

The method in accordance with Claim 29, further comprising a step of providing a power processing facility for conditioning and storage of electricity generated by said electricity generating means.

The method in accordance with Claim 39, further comprising a step of transporting electricity generated by said electricity generating means to said power processing facility.